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ABSTRACT

This report describes a project to develop more effective types of assessment in high school classes. The targeted population was high school students in two different middle-class communities in the northern suburbs of Chicago (Illinois). One site in a very stable, homogeneous community, predominantly white, contains 1,155 students. The other site, with 2,207 students, is very multicultural. The problems with traditional assessment tools are documented through teacher and student surveys, taped interviews, and a search of current literature. Analysis of problem causes reveals that traditional assessment tools are inadequate for the increasing trend toward including special education students in mainstream classrooms. The old-fashioned method of assessing everything with paper and pencil is outmoded in light of today's research on multiple intelligences and interdisciplinary strategies. A review of solution strategies suggested by experts in education, combined with an analysis of the problem setting, resulted in the selection of three modes of intervention for this action research project. The first was to determine faculty knowledge of and use of different types of education through a survey completed by 45% of the first school's 117 teachers and 39% of the other school's 179 teachers. Student attitudes regarding different types of education were assessed through a survey of 14 students from the smaller school and 26 from the larger. Models of teaching using various performance tools were introduced. Postintervention data indicated that students are more engaged in performance assessment tasks than in traditional objective tests. Students spend more time preparing for performance assessment, are more likely to learn transferable assessment lessons from their work, describe the assessment in a more positive manner, are more proud of their work, and perceive performance assessment as a better means of showing what they have learned. Four appendixes present project survey instruments. (Contains 10 tables and 17 references.) (Author/SLD)

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# INVESTIGATING ASSESSMENT

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## ABSTRACT

This report describes a project to develop more effective types of assessment in high school classes. The targeted population is high school students in two different middle class communities. One site is a very stable homogeneous community , predominantly white. The other site is very multi-cultural; both communities are located in the northern suburbs of Chicago. The problems with traditional assessment tools are documented through teacher and student surveys, taped interviews, and a research of current literature.

Analysis of problem cause data reveals that traditional assessment tools are inadequate for the increasing trend of including special needs students in mainstream classrooms as well as the regular education student. Traditional assessment tools are not true measures of learning, are not engaging for students, and focus on an end product rather than the more valuable process of learning. The old-fashioned method of assessing everything with paper and pencil is outmoded in light of today's research on multiple intelligences and interdisciplinary strategies.

A review of solution strategies suggested by experts in education, combined with an analysis of the problem setting, resulted in the selection of three modes of intervention that were used in this action research project: to discern the two faculties' knowledge of and use of different types of assessment; to survey students' attitudes regarding different types of assessment; to introduce models of teaching using various performance assessment tools.

Post intervention data indicated that students are more engaged in performance assessment tasks than traditional objective tests. Students spend more time preparing for performance assessment, are more likely to learn transferable affective lessons from their work, describe the assessment in a more positive manner, are more proud of their work, and perceive performance assessment as a better means of showing what they have learned.

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# CHAPTER 1

# PROBLEM STATEMENT AND CONTEXT

## General Statement of the Problem

The main assessment tools in the two targeted high schools are multiple choice tests and written essays. These traditional assessment tools are ineffective for a variety of reasons. Anecdotal records from teachers, a survey of teachers, and a review of educational research will be examined in order to document problems with traditional forms of assessment.

## Immediate Problem Context

### Site A

Site A is a public secondary school, grades 9 through 12, serving students from three suburban areas. Largely residential and middle to upper class, the district has a population of 22,000 and is located north of Chicago along Lake Michigan. The high school works in conjunction with two public and two private elementary schools in the area to ensure a smooth academic and social transition.

Residents of the district place a high value on education and demand the best for their students. Parent volunteers, local governments, businesses, and social and service organizations actively support the high school staff in its endeavor to provide a high quality education. These groups cooperate with the school in an expanding variety of

programs, while at the same time, the staff works to ensure that Lake Forest becomes fully utilized as an interactive and accessible public facility for the communities to which it belongs. Scholarships worth over $24,000 are offered annually by local community and school groups to deserving students at Site A, in addition to scholarships issued at the university level.

Students attend classes in a Georgian style building which was originally constructed in 1935 as a Works Project Administration project at a cost of 1.3 million. Over the years, the school has seen three additions and a major renovation. The most recent work -- a two-year construction\renovation project -- was partly funded by $24.6 million in voter approved bonds issued in 1990. The total $31 million package added 110,000 square feet of new academic and athletic space and renovated existing classrooms, a library, a gymnasium and offices.

The building now houses approximately 90 classrooms, including ten science labs, a 144-seat studio theater (in addition to a large auditorium), language lab and four computer labs; a complete array of special education facilities; a student publication center; a television studio and retrieval carrels for a collection of 4,000 curriculum-related videotapes; a 12,000 square-foot computerized library with CD-ROM information retrieval, 40,000 volumes and periodicals; a fine arts wing with choral, band and orchestra rooms, an art studio and a scene shop; an eight-lane Olympic-size pool; a three-station teaching gym with a 36-foot indoor climbing wall.

The high school's west campus facility, constructed in 1971, housed freshman and sophomores until 1983. It now is leased to outside interests. Bonds for the west campus

were retired in 1988. The high school continues to use the west campus playing fields and gymnasiums for athletic events, and the adjacent nature preserve for scientific study.

The major racial-ethnic groups in Site A were reported as follows: 92.3% White, 4.8 Asian\Pacific Islander, 1.7% Hispanic, 1.2% Black, and no Native Americans. The state totals report 64.7% White, 20.6% Black, 11.6% Hispanic, 3.0% Asian\Pacific Islander and 0.1% Native American (1995 School Report Card).

Site A's total enrollment of 1,155 includes 1.1% low-income students, no Limited-English-Proficient students, and 0.4% dropouts. The state reports 34.0% low-income, 5.6% Limited-English-Proficient and 6.8% dropouts. Site A reports 93.9% attendance rate, 2.7% student mobility, and no chronic truancy. The state's reported attendance is 93%; student mobility is 19.3%, and chronic truancy is at 2.4% (1995 School Report Card). Average class size for Site A is 18.1 students per class, while the state reported 19.7 students per class.

The 1994-95 graduation rate compares the number of students who enrolled in ninth grade in the fall of 1991 with the number from that group who actually graduated in 1995. Adjustments to the rate have been made for students who transferred in and out of the school. The formula to compute the graduation rate has been changed this year. The graduation rate may now include students who took more than four years to graduate. Site A reports a high school graduation rate of 98.6%, while the state reports an 80.7% graduation rate.

Included in Table 1 are the average I.G.A.P. test scores for Site A in reading, mathematics, writing, science, and social science from the School Report Card. The state

requires that only sophomores and juniors be tested in these specific content areas. Reading, math, science, and social science tests are on a 0-500 point scale, while writing is a 6-32 point scale. Site A consistently scores well above the state averages in all content areas for both grade levels.

Table 1

1995 Illinois Goal Assessment Program Test Scores: Site A vs. State Averages

| Sophomore Scores | | | |
|---|---|---|---|
| | Reading | Mathematics | Writing |
| Site A | 315 | 334 | 29.3 |
| State | 237 | 259 | 26.2 |
| **Junior Scores** | | | |
| | Science | Social Studies | |
| Site A | 320 | 331 | |
| State | 256 | 248 | |

Between 1991 and 1993, the State Board of Education established performance standards for reading, mathematics, writing, science and social science. Based on their standardized test scores, students are placed in one of three levels: Level 1 (do not meet state goals for learning); Level 2 (meet state goals); and Level 3 (exceed state goals). The cut-off scores for these levels were established with the help of state elementary and secondary educators. Table 2 shows the distribution of students at each level.

The statistics in Table 2 show that the number of students who do not meet state goals is much lower at Site A than the state's average in every discipline. At Level 2, Table 2 shows that Site A has more students who meet the state goals compared to the state's average in every discipline; and in Level 3, there are more students at Site A who exceed state goals compared to the state's average in each discipline.

Table 2

Illinois Goal Assessment Program Test Scores in 1995 at Site A

| | Reading | Math | Writing | Science | Social Science |
|---|---|---|---|---|---|
| Level 1: | | | | | |
| Site A | 11% | 4% | 12% | 6% | 2% |
| State | 31% | 23% | 43% | 25% | 12% |
| Level 2: | | | | | |
| Site A | 32% | 44% | 34% | 48% | 41% |
| State | 41% | 51% | 35% | 55% | 62% |
| Level 3: | | | | | |
| Site A | 58% | 51% | 54% | 46% | 57% |
| State | 28% | 27% | 22% | 21% | 25% |

A.C.T. scores range from 1 (lowest) to 36 (highest). A "core" program is a high school program which includes at least 4 years of English and at least 3 years each of mathematics, social studies, and natural sciences. Generally, students who complete core programs earn higher average scores than those who had less than core programs. Students who completed a core high school program at Site A reported a composite score of 25.4 on the ACT, while the state reported a composite score of 22.8. All students taking the ACT test at Site A reported a composite score of 24.0, while the state reported a composite score of 21.1.

Reflecting the high value parents place on education, most students at Site A pursue the high school's college preparatory program, and over 90% of them continue their education at a college or university. Typically, class test scores on the ACT are among the top in the nation, a fact that is particularly notable since a very high percentage of Site A's students take the test. A total of 87 % of the Class of 1995 took the ACT,

achieving an average composite score of 24. Their interests are well rounded, however, as is indicated by their participation in art, music, theater, student government and athletics.

Throughout the year, many of them devote themselves to volunteer projects that serve the district and surrounding communities. From fund-raising for United Way to tutoring or working in food pantries, Site A's students share their talent, energy and resources with those less fortunate.

The staff includes a faculty of approximately 200 full and part-time teachers, support staff and paraprofessionals, and ten full and/or part-time administrators as follows: superintendent, principal, associate principal, business manager, director of pupil services, deans of students, director of special education, director of community education, and a personnel specialist. More than 94% of the faculty have master's degrees or beyond and bring an average of 17 years of teaching experience to the school.

Site A reports the ethnic makeup of the staff as follows: 95.7 % White, 2.3% Black, 2.1% Hispanic, no Asian\Pacific Islanders or Native Americans. Fifty-seven point nine percent are male and 42.1% are female. The total number of teachers at Site A is 88. The state averages are 84.6% White, 12.0% Black, 2.7% Hispanic, 0.6% Asian\Pacific Islander and 0.1% Native American. Twenty-five point five percent are male and 74.5% are female (1995 School Report Card).

The average pupil-teacher ratio is 14.3 students to 1 teacher, while the state ratio is 18.2 students to 1 teacher. The average pupil-administrator ratio is 124.2 administrators to 1 student. Tne state average is 255.6 administrators to 1 student. The average teacher and administrator salaries are based on full-time equivalents. Effective

1991-92, salaries include various monetary benefits and compensation such as tax-sheltered annuities, retirement benefits, bonus and extracurricular duty payments which were previously excluded. Therefore, it is not appropriate to compare this year's salaries with those prior to 1991-92. The operating expenditure per pupil and expenditure by fund are for 1993-94, the most recent year available. Site A reports the average teacher salary as $63,770, the administrator salary as $89,137, and the operating expenditure per pupil as $14,182. The state reports the average teacher salary as $39,505, the average administrator salary as $64,835, and the average operating expenditure per pupil as $5,705.

School policy is set by the seven members of the Board of Education who represent the Site A community and surrounding communities, and who serve four-year terms. Traditionally, the communities are represented by four members from Site A and three from the surrounding feeder school communities.

Parents play a vital role in the successful operation of Site A's program. Various parent organizations actively support the school and its students, including the Association of Parents and Teachers (APT), Producers at Large (PALS) and the Booster Club. The APT, whose members include 95% of Site A's families, promotes communication and cooperation between school and community. It is responsible for numerous programs and projects that enhance the quality of life at Site A. PALS supports the theatrical productions, as many as five during the school year. The Booster Club supports the sports program and funds scholarships for summer athletic training programs. In addition,

parents serve on the Home/School Liaison Committee and, as individuals, support the many school related efforts that emerge each year.

There are more than 195 course titles and levels in the educational program of English, mathematics, social studies, science, foreign languages, fine and applied arts including vocational and career training, and physical education. College preparatory courses form the basis of the high school's curriculum. Concepts courses provide review and remediation of basic skills that are essential to functioning in society. Advanced placement and honors courses offer academic challenges in all academic areas. Honors seminars for gifted and talented seniors and sophomores explore multi-disciplinary subject matter from the varying perspectives of art, music, mathematics, science, philosophy, literature, and history. Independent study is offered to upper classmen in academic areas not available in the general course offerings, such as sixth year foreign languages or advanced computer technology.

Site A uses a wide range of technology to support its academic curriculum. Students, faculty, and the educational community are actively involved in using technology to develop thinking and reasoning skills, to develop active and reflective learning, to learn to manage information, to engage in exploring academic areas, and to use hardware and software efficiently, including access to the Internet.

Pupil services provide support for students inside and outside the classroom. These may include counseling, academic planning, special instruction, referral services, physical and emotional health support service, and an opportunity for community/school interaction through a variety of programs.

The student/counselor relationship is one that is maintained throughout a student's stay at the high school In the capacity as advisor, the counselor assists students and parents in all academic and other school-related issues and may also provide emotional counseling or support-service referrals if necessary. The counselor also plays a major role in post-high school planning, including career exploration, academic planning, college search, and the college application process.

Special Education provides support to students and staff in meeting the individual educational needs of each student with an identified disability. Each student served has a written plan developed through the collaborative efforts of the student, parents, counselor, teachers, and special education staff. The plan will identify goals to address the student's needs as well as services and accommodations to be provided to enable the student to participate successfully. Students can be provided with alternative content instruction, learning as instruction, accommodations, consultation to teachers, speech and language services, educational assessment, and other related services. While the school strives to educate its own students at Site A whenever possible, a full continuum of placement options is available appropriate to the students' needs.

Student assistance programs address specific areas of emotional and physical health; other support services may be formed on an as-needed or ongoing basis. Resources for gifted and talented include counseling, academic programs, and outlets for creativity in the performing and visual arts and team competitions in science, math, debate, and forensics.

With an abundance of extracurricular clubs and service organizations and new ones being formed as student interest dictates, the high school offers something for everyone. There are numerous theatrical productions a year, three student publications, musical programs, and strong interscholastic and intramural sports programs. More than 90% of Site A's students are involved in at least one extracurricular activity.

Athletics is an important part of the extracurricular program. There are 13 sports for girls: golf, field hockey, water polo, swimming, tennis, volleyball, cross country, basketball, gymnastics, badminton, soccer, softball and track; and 13 sports for boys: golf, football, cross country, basketball, wrestling, swimming, water polo, baseball, lacrosse, tennis, track and volleyball. Athletes compete in the local conference, as dictated by the state, for all but five sports: field hockey, girls' badminton, lacrosse and water polo, which are non-conference, and ice hockey, which is a private club sport. The intramural program attracts several hundred students each fall and winter. Intramurals include flag football, indoor soccer, tennis, golf, bowling, basketball, floor hockey and badminton.

Site A serves several suburban villages, but the majority of its students are from a small, elite community of 17,836 with an average home value of $475,000. The average income per capita is $127,356, and the median age is 38.

Although Site A is its own district made of only one high school, there is collaboration with feeder schools in the area. Within its borders are two public elementary schools, both K-8; as well as two private elementary, one of which is K-9. The high school has created an expanding program directed toward ensuring a smooth academic and social transition for elementary students as they enter the high school.

Site B

Site B is a public high school, grades 9-12, serving students from five different suburbs. The school population is diverse in socio-economic status as well as ethnic makeup. The school district is comprised of three separate high schools with a total population of 5,729. More than one-third of those students (2,207) attend Site B. A fourth high school in the district was closed in 1982 because of low attendance in the district.

The building at Site B was the first in the district, constructed of brick in 1929 in, what was then, a rural community outside a thriving Midwestern city. The curriculum included agricultural classes and student-tended gardens. Today this same site is surrounded by a busy eight-lane interstate expressway, a four-lane highway, and rows and rows of side streets lined with mature trees and houses.

The original building has grown to three times its original size. Another wing was added in 1935 for industrial arts and music; then an entirely new building was added in 1954 , including a 1,500-seat auditorium and a 4,000-seat field house. Today, Site B houses approximately 130 classrooms, including science labs, a studio theater, computer labs, language labs, television and radio studios, a computerized library with CD-ROM information retrieval, a fine arts wing, an art studio, a swimming pool, gymnasiums, tennis courts, and an outdoor stadium.

The racial/ethnic background as reported on the 1995 School Report Card is included in Table 3. These figures, however, do not show the true multicultural picture of Site B.

Table 3

Ethnic Make-Up of Site B in 1995

| | White | Black | Hispanic | Asian/P Islander | Native American |
|---|---|---|---|---|---|
| Site B | 61.8% | 4.5% | 6.9% | 26.4% | .4% |
| District | 76.1% | 2.3% | 7.7% | 13.7% | .3% |
| State | 64.7% | 20.6% | 11.6% | 3.0 | .1% |

Limited English-proficient students at Site B are 12.1% of the population, compared to the district's 6.3% and the state's 34%. In 1994, Site B was designated as a language minority school because more than half of the students speak a language other than English at home. The large white population includes Russians, Poles, and other European immigrants who reside in the small ethnic neighborhoods of Site B. The following statistics about language show the true picture.

There are 44 languages other than English spoken by students at Site B. The largest language minority is Polish (255 speakers), followed by Spanish (139), Gujarati (116), Korean (107), Russian (84), Tagalog (73), and Greek (66). The other languages are each represented by less than 50 speakers.

Because of the many beautiful, diverse voices that speak for Site B, the school has created an impressive English-as-a-Second Language Department. This department employs 13 teachers and 1 teacher aid. Classes are conducted in at least four different languages.

Attendance at Site B is 93.9% compared to the district rate of 92.6% and the state's 93.4%. Chronic truancy is below 1% at Site B and in the entire district; and the dropout rate is 1.8% for the school, 1.4% for the district, well below the state's 6.8%.

Average class size for the school is 21.4%, almost the same for the district, and a little below the state average of 19.7%. Student-teacher ratio is 16.6:1 in the district, almost two percentage points below the state average. The 1994-95 graduation rate for the school is 21.4%, just under the 22% for the district, but almost two percentage points above the state average.

Included in Table 4 are the average state assessment scores for Site B in reading, math, writing, science, and social science from the School Report Card. Reading, math, science, and social science tests are on a 0-500 point scale, while writing is on a 6-32 point scale. Site B consistently scores above the state averages in all content areas for both grade levels.

Table 4

1995 Illinois Goal Assessment Program Test Scores: Site B vs. State Averages

| Sophomore Scores | | | |
|---|---|---|---|
| | Reading | Math | Writing |
| Site B | 283 | 310 | 28.5 |
| District | 279 | 309 | 28.7 |
| State | 237 | 259 | 26.2 |
| **Junior Scores** | | | |
| | Science | Social Science | |
| Site B | 293 | 256 | |
| District | 295 | 277 | |
| State | 256 | 248 | |

The students have also been labeled by levels 1, 2, or 3, depending on whether they failed to meet the state goals (Level 1), met the state goals (Level 2), or exceeded the state goals (Level 3). Table 5 shows the distribution of students at each level.

Table 5

Illinois Goal Assessment Program Test Scores in 1995 at Site B

| | Reading | Math | Writing | Science | Social Science |
|---|---|---|---|---|---|
| Level 1: | | | | | |
| Site B | 17% | 6% | 14% | 12% | 12% |
| District | 17% | 7% | 15% | 12% | 7% |
| State | 31% | 23% | 43% | 25% | 12% |
| Level 2: | | | | | |
| Site B | 39% | 47% | 43% | 55% | 60% |
| District | 41% | 48% | 38% | 52% | 60% |
| State | 41% | 51% | 35% | 55% | 62% |
| Level 3: | | | | | |
| Site B | 44% | 47% | 43% | 33% | 28% |
| District | 43% | 45% | 47% | 36% | 33% |
| State | 28% | 27% | 22% | 21% | 25% |

The statistics in Table 5 show that the number of students who do not meet state goals is lower at Site B than the state's average in every discipline except social science, where the percentages are the same. At Level 2, Table 5 shows that Site B has fewer students who meet the state goals in reading, math, and social science compared to the state's average. In science the percentage of students who meet the state goals is the same for Site B and the state, and in writing Site B has more students who meet the state goals than the state's average. In Level 3, there are more students at Site B who exceed state goals compared to the state's average in every discipline.

ACT scores are reported for students who complete a core program and for those who do not. The composite score for students at Site B who completed a core program is 22.9, compared to 23.3 for the district and 22.8 for the state. The average composite score for students who did not complete a core program is 21.4% for Site B, 22.2% for

the district, and 21.1% for the state. Almost 49% of the class participated in a core program and took the ACT; and 78.2% of the all the students at Site B took the ACT. Those numbers compare with the 80% of the district students who took the ACT and the state's 63%.

The district employs 403 teachers, 96% of whom are white, and 4% of whom are divided among Black, Hispanic, Asian/Pacific Islander, and Native American. Exactly 71% of the teachers in the district have a master's degree or above, and the entire faculty has an average of 14.9 years of teaching experience. Site B employs 177 faculty members, 17 teacher aids, 21 paraprofessionals, and two security guards. The 19 administrators include a principal, two assistant principals, three deans, and 13 department heads. School policy is set by the seven members of the Board of Education who represent the district communities and who serve four-year terms.

Average teacher salaries for 1994-95 in the district were $59,185, compared to the state average of $39,505. An administrator's average salary in the district is $95,436, compared to the state average of $64,835. And the district spends an average $11,183 per pupil in the 1993-94 school year, compared to the state's average per pupil expenditure of $5,705.

The curriculum at Site B is comprehensive and dynamic. As the world continues to change, Site B makes changes to its curriculum and to its facility in order to keep pace with the world beyond high school. A $4 million technology package approved by the Board in 1995 allowed for the two new state-of the art computer labs at Site B in addition

to the existing labs. This new technology also brought courses taught through interactive video.

Site B has a unique program in the district which integrates curricula from social studies, biology, and English in a multidisciplinary study called Project M (for multidisciplinary). The 155 freshmen in this program represent all ability levels and are heterogeneously grouped. The social studies and English classes use block scheduling so that students have 90-minute periods but only meet every other day. This interdisciplinary program is being studied by the district with hopes of furthering the interdisciplinary angle.

Site B is also unique to the district in its facilities for Special Education students. The building was modified to accommodate the special needs of all handicapped students, and all three high schools use its facilities for their special education populations.

In addition to the typical school clubs, Site B is enriched with clubs that promote ethnic pride. Clubs at Site B include Syrian Club, Asian Club, Irish Club, Polish Club, Spanish Club, Russian Club, Indian Club, and Greek Club.

Although Site B draws its student population from several different suburbs, most of its pupils are from a village of 36,175 with an average home value of $231,600, though prices can exceed $1 million. The average income is $69,601, and the median age is 41.

## The Surrounding Communities

Both Site A and Site B are located in the suburban conglomerate of a very large city that is noted for its cultural diversity and cosmopolitan flavor. The ethnic groups prevalent at Site B are also strongly represented in pockets throughout the metropolitan area. The city's public schools have high dropout rates, low competency scores on

standardized tests, and chronic truancy. Site B's communities are adjacent to the city, and some of the transient population at Site B moves to and from this larger urban area. Site A, on the other hand, is 30 miles away from the larger city, separated by affluent suburbs and undeveloped areas.

The city, Site A, and Site B are all linked with mass transit systems; and all three locales mainly rely on the same two daily newspapers. Both Sites A and B have been affected by the current trend to move out of the city to the suburbs, and that trend has created more jobs in the suburbs; however, Site A is still mostly residential, while Site B is surrounded by the businesses of urban sprawl.

## National Context of the Problem

Nationwide, schools have "dramatically" increased their reliance on standardized short-answer and multiple-choice tests (Ascher, 1990). However, these traditional assessment tools, used in urban settings, serving low-income, linguistic and cultural minority students, have narrowed the curriculum, and exacerbated tracking and failure rates (Fair Test and NYPIRC, 1990). In an effort to evaluate students more fairly, to enrich curriculum, and to stress higher order skills, schools have started evaluating other diagnostic instruments. "Twenty-eight states have begun to use essays to assess writing, and there is a move to replace standardized tests with 'performance-based assessments' in some subjects (Ascher, 1990, p. 1). Performance assessment as defined in 1992 by the Office of Technology Assessment of the U.S. Congress is "testing that requires a student to create an answer or a product that demonstrates his or her knowledge or skills" (Rudner, 1992, p. 2).

The main reason for testing (besides accountability and placement) is to discover how students think and to diagnose where they are having difficulties in learning (Ascher, 1990). Assessment tools, then, should give students as much range as possible to express themselves fully (Archibald & Newmann, 1989), and to assess their learning in its natural context, as they make active use of the skill (Gardner, in press).

According to Ascher, traditional standardized tests assume that a multiple choice question about possible grammatical solutions to a sentence can indicate a student's writing skills.

> An A in 11th grade English may mean merely that a student was dutiful and able to fill in blanks on worksheets about juvenile novels. And it remains possible for a student to pass all of his or her courses and still remain functionally and culturally illiterate. (Wiggins, 1990, p. 704)

Traditional tests, scored on the basis of "objective" notions of right and wrong answers, measure only discrete linguistic and number skills (Ascher, 1990). Recognizing the limitations of traditional assessment tools, educators are investigating many alternative forms of assessment.

Besides falling short of educators' needs, traditional forms of assessment are not serving students well either. Multiple choice tests and short answer tests given at the end of a unit do not necessarily reflect what students have learned. Those types of tests do not make allowances for students with special disabilities who may understand much more than they can communicate with a scantron or even in an essay. Those types of tests may

show what students have memorized but not whether students can apply the knowledge they supposedly possess. According to Willis (1996),

> Multiple choice tests convey to students that what is worth learning is bits of knowledge that can be quickly recalled or recognized. Performance assessments, on the other hand, convey to students that educators value in-depth understanding, the ability to apply knowledge in new situations, an high quality work. (p. 4)

Students may retain information just long enough to get through the test, so what have they actually learned? Traditional tests show only what the students know at a given moment on a given day, and the content of those tests is arbitrarily determined by the teacher, whose focus of material may or may not coincide with any individual student's focus. Wiggins (1990) explains that

> The true test of ability is to perform consistently well on tasks whose criteria for success are known and valued. By contrast, questions on standardized tests are usually kept 'secure,' hidden from students and teachers, and they thus contradict the most basic conditions required for learning. (p. 706)

Depending on how traditional tests are scored, these tools may only assess correct answers instead of correct procedures. Math teachers who look only at scantrons cannot give students credit for going through the process correctly. Rudner (1994) states that

> When students take a multiple-choice mathematics test, for example, there is no way to distinguish among those who select the correct answer because they truly understand the problem, those who understand the problem but make a careless calculation mistake, and those who have no idea how to do the work but simply

> guess correctly. Performance assessment, on the other hand, requires students to *demonstrate* knowledge or skill; therefore, the process by which they solve problems becomes important. (p. 2)

Similarly, multiple choice tests for literature or science do not reveal the thinking process students go through. According to Resnick (1987),

> Many of the tests we use are unable to measure what should be the hallmark of a 'thinking' curriculum: the cultivation of students' ability to apply skills and knowledge to real world problems. Testing practices may, in fact, interfere with the kind of higher order skills that are desired. (p. 44)

Another shortcoming of traditional assessment tools is that they are not fully engaging for students. "A real test replicates the authentic intellectual challenges facing a person in the field. Such tests are usually also the most engaging" (Wiggins, 1990, p. 706). Traditional classroom tests usually last less than the 45-minute class period, and the preparation can typically be a "cramming" session the night before the test. Usually a teacher's test involves only the one discipline, so the test experience is not an authentic experience, and it is not a motivational tool for many students because they have no interest in the test itself. In contrast, using portfolio assessment, "students take ownership for their work and reflect on their progress.... (They) become increasingly responsible for establishing personal goals and demonstrating they have reached those goals through a collection of work" (Walters, 1992, p.14). When students are evaluated with only traditional test scores, however, the only meaningful part of the tests may be the raw scores translated into letter grades.

Another problem with traditional assessment tools is the focus on the assessment as the end of the process of learning. The tests are given at the end of the unit; the tests measure learning after the learning is over; and the end result of all the learning is a test with a score.

Teachers and students nationwide depend on these traditional testing tools as integral parts of their education, but both teachers and students will agree that there are inherent problems with these tools. Other methods of assessment should be evaluated by both teachers and students. New forms of assessment should be real measures of real student learning and understanding. Assessment should be engaging for the students and should provide some product that is meaningful to the student within the context of the classroom and without. Presently, American students are the "most tested" but the "least examined youngsters in the world" (Wiggins, 1990, p. 708).

# CHAPTER 2

# PROBLEM DOCUMENTATION

## Problem Evidence

In order to document teachers' knowledge of and use of different types of assessment, teachers were surveyed at Sites A and B in two different ways. First, the entire faculties at both schools were surveyed at the beginning of the school year using a seven-part questionnaire which was completed and returned anonymously (see Appendix A). In addition, an ongoing survey was conducted with a consistent group of five teachers (called core teachers) at each site (see Appendix B).

The surveys for the entire faculties showed some gaps in some of their knowledge about assessment. Of Site A's 117 teachers, 45% returned the survey; and at Site B, 39% of the 179 teachers returned the completed questionnaires. Those surveys revealed that 49% at Site A (n=45) and 57% at Site B (n=69) had no definition for performance assessment. In fact, 73% of the teachers surveyed at Site A and 68% at Site B could not correctly identify performance assessment tasks consistently. Teachers were asked to identify performance assessment tasks from a list of 12 items. Some teachers circled "a true/false test" and "multiple choice test" as examples of performance assessment. Others failed to recognize speeches, experiments, presentations, and essays as performance tasks. Of all the respondents, 16% wrote that they "always" use performance assessment. Other than in physical education classes, it is difficult to imagine that teachers are using

performance assessment exclusively, which supports the idea that many teachers may not know enough about different types of assessment.

One of the problems associated with traditional testing tools is the inability to measure student effort. A true/false or multiple choice test is usually reduced to a number showing the percentage of correct responses, which is then equated with a letter grade. Scantron tests are especially quantitatively interpreted. However, 38% of the teachers who responded to the survey agreed that they give at least equal weight to student effort rather than just the final product showing student achievement. Surely these teachers would appreciate the opportunities for assessing student effort that are inherent in performance assessment. Table 6 shows how teachers rated student effort vs. student products in assessing student achievement. The circled numbers indicate the number of teachers who gave that answer.

Table 6

Student Effort vs. Student Products

Teachers used the line below to weight the importance of student effort vs. student products in assessing student achievement. (n=114)

| (2) | (1) | (1) | (3) | (36) | (9) | (48) | (10) | (4) |
|---|---|---|---|---|---|---|---|---|
| 1 | | 2 | | 3 | | 4 | | 5 |
| the effort of the student | | | equal weight to effort and product | | | the final product (test, project, essay) | | |

More than half (54%) of all the teachers who responded at both sites agreed that the final product is the most important part of assessing student achievement. If final products are

so important in assessing student work, shouldn't that final product be something more engaging and more deep than a pencil and paper test of memory?

Another problem with traditional testing methods is evident in teachers' answers to a question about considering the process a student uses to produce an answer rather than strictly grading the answer. Table 7 shows that 75% of all the teachers at both sites more than occasionally consider student process in obtaining an answer rather than assessing only the correct answer.

Table 7

Assessing Process Rather than Strictly Correct Answers

Teachers marked how often they consider the students' process in obtaining an answer rather than assessing only the correct answers. (n=114)

| | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| | (2) | (4) | (1) | (22) | (9) | (48) | (12) | (16) |
| | never | | | occasionally | | | | always |

The question, then, is how do teachers evaluate process on a scantron, true/false, or even a multiple choice test? If teachers value process, wouldn't they appreciate assessment tools that allow students to demonstrate application of knowledge and the processes involved rather than strictly pencil and paper tests?

Given these statistics, it appears that teachers could use more education about using performance assessment tasks in their classrooms. Performance assessment tasks produce meaningful end products that are authentic assessments of student performance,

and performance assessment allows teachers to consider students' processes rather than just correct answers.

The Core Teacher Surveys also provided valuable information about teachers' various methods of assessment. The 12 teachers surveyed weekly (six at each site) reported using 159 traditional types of assessment during a semester. These included scantron tests, objective tests other than scantrons, and essays. Even though essays are considered a form of performance assessment, they are also categorized as traditional assessment tools. These same 12 teachers reported using 18 other assessment tools 83 times, and all of those are considered performance assessments. These other forms of assessment include experiments, projects, speeches, videos, artwork, posters, graphs, letters, presentations, interviews, performances, debates, time lines, demonstrations, problem solving, advertisements, and games. The number of different tools is good evidence of teachers' knowledge of performance assessment, but only 34% of the assessments that were reported were performance assessment. While some teachers' records showed an array of different tools, other teachers used no performance assessments other than essays.

## Probable Causes

If teachers want to assess more than what traditional assessment tools can show them, why aren't they using performance assessment? Probable causes at both sites are also documented by current literature about teaching trends.

One reason teachers continue to rely on traditional forms of assessment may be teacher age and years of experience. At Site A and Site B teachers have been teaching for

an average of 17 and 15 years, respectively. Professionals who have been successful using traditional methods of assessment year after year may be reluctant to embrace new ideas. There is a prevalent attitude of "If it ain't broke, don't fix it."

Another reason more teachers are not using different types of assessment may be because of a lack of staff development. A survey conducted by the State of Kentucky found the following:

> In general, teachers were ill-prepared to adapt their instructional practices to the new demands of a new authentic, performance-based assessment program. Most teachers had scant knowledge, personal background, experiences, or formal training with various types of performance-based assessments or ways to use them as instructional tools. The only training that most teachers had received was scattered, one-day staff development workshops. (Guskey, 1994, p. 53)

Developing effective assessment tools means carefully constructing rubrics and other dimensions of the task. Teachers need more than definitions for rubric, authentic assessment, portfolio assessment, and performance assessment. Educators need to learn about many dimensions of assessment, and one-day seminars are too brief to offer in-depth lessons on how to create different types of assessment. Although many veteran teachers have continued their education through the years, they have pursued many avenues of learning; and with today's emphasis on technology and state accountability tests, many teachers choose to attend classes about the Internet and I.G.A.P. rather than assessment.

Teachers may also see traditional assessment tools as handy because of time constraints. State accountability tests have begun to drive the curricula of schools all over

Illinois. Feeling the constraints of curriculum requirements, many teachers are hesitant to use performance assessment tasks which may take more class time. After teaching a unit of study, teachers are under pressure to move on to the next chapter rather than to allow students to apply their knowledge in an authentic task. As states and districts continue to add mandates for each grade level, curricula is apt to become more streamlined and hurried rather than allowing for depth of knowledge and application of skills in real contexts. "It is only natural that teachers, schools, and their curricula may emphasize what is on such tests that hold them accountable, seriously limiting the educational experiences of our children" (Farr, 1992, p. 4).

Another reason teachers are sticking with traditional forms of assessment may be because multiple choice and true/false tests are easy to score. It is very time consuming for teachers to develop rubrics for each assignment. Scantron machines, on the other hand, can quickly grade multiple choice and true/false tests. If teachers were more informed about assessment techniques being used by other teachers, rubrics could be shared and customized without completely reinventing the wheel every time a performance task is assigned. Teachers need opportunities to work together developing model rubrics that would make grading performance assessment tasks easier.

Teachers also sometimes choose traditional assessment tools for a very practical reason -- lack of supplies and storage room. Educators are already financially supplementing education by spending their own money for supplies. Performance tasks may require videos, art supplies, postage, presentation boards, color markers, rulers, calculators, and poster board that all students cannot afford. And as students create art

work, graphs, posters, and videos, where will their work be stored? Portfolio assessment promises to show an assortment of student work over an extended period. Both Sites A and B would need some remodeling to accommodate four-year portfolios of performance assessment tasks for each student.

Obviously, teachers have good reasons for continuing to use the traditional forms of assessment that have served them through their careers. States that are mandating more authentic forms of assessment and administrators who want to promote performance assessment need to consider the teachers' perspective. Guskey (1994) says,

> Perceptions of little time and lots of extra work, combined inadequate experience, training, and materials, appeared to keep most teachers frozen in virtually the same instructional patterns that they had before the new assessment system. (p. 53)

Changing teachers' attitudes about using different types of assessment will need to address all of the teachers' very practical concerns. "Bridging the chasm between authentic assessment and authentic classroom practice will demand a substantial amount of additional time, resources, and training opportunities" (Guskey, 1994, p. 53).

# CHAPTER 3

# THE SOLUTION STRATEGY

## Literature Review

There are several remedies which can be considered to address the problems presented with traditional forms of assessment. The literature is full of definitions of new assessment tools as well as data gathered from pilot programs using these new tools of assessment. One of the new buzz words is "performance assessment." But it is more than just a word or trend. "Nearly every current reform initiative includes a provision to assess students' *performance* on complex learning tasks" (Guskey, 1994, p. 51).

The reasons for reforming assessment tools are related to the reasons for reforming education. Educators need to determine goals for student achievement; then they need to develop tools to assess how well students are meeting those goals. "The most important reason to develop performance assessment is that it motivates educators to explore questions at the very heart of the purposes and processes of schooling" (Jamentz 1994, p. 55).

There is a litany of professional education researchers and practitioners who advocate use of performance assessments for the following reasons: (1) they provide clear guidelines for students about teacher expectations (Berk, 1986); (2) they reflect real-life challenges (Hart, 1994); (3) they make effective use of teacher judgment (Archibald & Newmann 1988); (4) they allow for student differences in style and interests (Mitchell,

1992; Wiggins, 1989); (5) they are more engaging than other forms of assessment (Wiggins, 1991).

Indisputably, performance assessment is the wave of the future. "Many superintendents, state legislators, governors, and federal officials see performance tests as a means to motivate students to learn and schools to teach concepts and skills that are more in line with today's expectations" (Rudner, 1994, p. 4). The State of Illinois's I.G.A.P. tests are an example of performance assessment. Students are required to write multiple-paragraph essays to demonstrate their writing skills instead of just identifying correctly written phrases from multiple answers like on the S.A.T. and A.C.T.

Two years ago the State of Kentucky passed the Kentucky Education Reform Act which requires schools to assess student performance through portfolios, through "performance events," and through "transitional tests" which assess performance in reading, writing, math, science, social studies, arts and humanities, and vocational education/practical living. School improvement will be demonstrated using this assessment program, and schools will be financially rewarded or punished.

Indiana piloted a program in 1992 using performance assessments. The evaluation of their program included open-ended questions put to teachers and students regarding their attitudes about the assessments. Students wrote of the performance assessment, "It gives you something to think about instead of just guessing"; "it's more interesting and showed our skills"; "you get to use your skills in more ways"; and "they (math problems) are more interesting to do" (Farr, 1992, p. 57).

American businesses have also been involved in lauding performance assessment. "Business people, in particular, have responded that they are far more interested in whether potential employees can perform these kinds of tasks than they are in whether students can identify right answers on multiple-choice tests" (Farr, 1992, p. 7). In performance assessment tasks, students conduct original research, analyze the research of others, argue critically and synthesize divergent viewpoints. "Besides teaching *about* history, literature, and mathematics, teachers want to give students opportunities *to be* historians, literary critics, and mathematicians" (Willis, 1996, p.3). Wiggins (1992) says that authentic assessments replicate the challenges and standards of performance that typically face writers, business people, scientists, community leaders, designers, historians, and other professionals. In the work place, students will use tools of their trade and collaborate with others to do their jobs. Yet, in traditional pencil and paper tests where students are choosing canned answers, there are no tools, no materials, and no collaborators.

Advocates of performance assessment also appreciate the higher order thinking skills involved. "Performance-based assessments tend to focus on higher-order thinking and the critical reasoning used to reach solutions" (Rudner, 1994, p. 8). After leaving school, a person will probably never again take a multiple choice test. When in life are people required to select answers from a contrived list that includes several wrong answers purposely posed to distract or confuse them? Tests in real life will require people to pull together information to come up with answers. "Most of the important problems one faces are ill-structured, as are all the really important social, political, and scientific

problems. But ill-structured problems are not found in standardized achievement tests" (Wiggins, 1990, p. 706). Performance assessments are "complex intellectual challenges, not fragments and static bits or tasks" (Wiggins, 1990, p. 711).

By using more authentic forms of assessment, teachers will be providing meaningful instruction that will more actively engage students in the learning process. The emphasis is on active learning. Willis (1996) explains that "Using class-generated assessment criteria, students will feel ownership in the way their work is rated" (p. 4). Authentic assessments will create opportunities for students to reveal their thinking through tasks that motivate them to "give their very best" (Willis, 1996). Wiggins (1992) also argues that "a true test of intellectual ability requires the performance of exemplary tasks" (p. 703).

Performance assessment is also more valuable as a tool for measuring student achievement because it measures student performance over time. "Traditional tests -- as arbitrarily timed, superficial exercises that are given only once or twice -- leave us with no way of gauging a student's ability to make progress over time" (Wiggins 1992, p. 705). When students create a portfolio of writing or projects, they are able to self-assess their evolution as scholars and identify their strengths, weaknesses, interests, and possible fields of vocation. Seeing their own growth is an important factor in motivating students to continue their education.

Teachers appreciate performance assessment because of the evidence it provides in assessing student achievement. "One of the main criticisms leveled against traditional assessments is that they are used to sort students and, on that basis, to deny educational

opportunities" (Darling-Hammond, 1991, p. 57). Good teachers, however, want assessment tools that show how their students are doing as well as evidence of problems and progress so that the teachers can adjust their teaching appropriately (Rudner, 1994). In a recent survey, after six months of using outcome-based performance tasks, 74% of teachers rated them as useful or highly useful; and 67% indicated that these tasks provided them with better assessment information than more traditional classroom assessment practices (Marzano, 1994).

## Project Objectives and Processes

As a result of the strategies outlined above, during the period of September 1996 through March 1997, teachers at Sites A and B will be more informed about performance assessments and will have models of performance assessment tasks available as indicated through interviews with core teachers at each site.

One objective of this project is to demonstrate the value of performance assessment with the student populations at Sites A and B. The importance of this type of assessment will be documented through written student surveys.

Another objective is to provide examples of performance assessments for teachers at both sites to use as a resource. The portfolio of examples will be generated from teachers at both buildings and will be distributed to a core sample of teachers at each site. These core teachers will then be surveyed to see if they have a better understanding of performance assessment and to discern their attitudes about using more performance assessment in their classes.

Hopefully, students and teachers at both sites will benefit from this project. Students who complete the performance tasks designed by the researchers will have the benefit of engaging assignments that the students will be proud of. These students will see these performance assessment tasks as meaningful measurements of their own achievement. Teachers will see the value of performance assessment tasks when they see the student interviews on video and realize how much more engaging and meaningful these tasks are for real education.

## Project Action Plan

### Summary of Action Plan

The purpose of this action research project is to examine current types of assessment used at two different high schools and to propose better methods of assessment than those traditionally used. The intervention will be three-fold: to discern the two faculties' knowledge and use of different types of assessment; to survey students' attitudes regarding different types of assessment; and to introduce models of teaching using various performance assessment tools.

### Faculty Survey

The entire faculties at both high schools will be surveyed to determine several key issues:

* current types of assessment used
* current use of objective tests (i.e., scantron, true/false)
* knowledge of performance assessment
* opinions regarding assessment

* current use of performance assessment

The data from these surveys will document the probable cause for this action research project. One hypothesis is that this project can improve assessment strategies in both high schools by providing examples of performance tasks incorporating performance assessment. The examples that are generated will be shared with a core group of teachers in each building.

Student Survey 1 -- Objective Tests (Appendix C)

The researchers have developed two different surveys for the students. One survey is intended to gather data regarding student attitudes about an objective test. The surveys will not be given until the test has been graded and returned to the student. Data from these student surveys will provide information about several key issues:

* the effort expended by each student in preparation for the test
* the valuable information they gained from taking the test
* the value of the completed test
* attitudes about the teacher's grade on the test
* attitudes regarding the validity of the test in measuring what was taught in the classroom
* self-assessment of their performance on the test

The data from these surveys will document the probable cause for this action research project. Another hypothesis is that objective tests do not fully engage the students. The students have less ownership in these types of assessment as compared to

performance assessment (which will be measured by the other student surveys). The data from these surveys will be presented to a core group of teachers at each building.

Student Survey 2 -- Performance Assessments (Appendix D)

The second student survey will ascertain student opinions regarding performance assessments. The surveys will not be given until the performance task has been graded and discussed with the student. Data from these student surveys will provide information about several key issues:

* the effort expended by each student in preparation for the performance task
* the valuable information they gained from completing the task
* the value of the completed task
* attitudes about the teacher's grade on the assignment
* attitudes regarding the validity of the performance task in measuring what was taught in the classroom
* self-assessment of their performance of the task

The data from these surveys will document the need for intervention regarding assessment techniques. Another hypothesis is that the students will value performance assessment over traditional assessment tools because they will have ownership of these assignments. The prediction is that they will be more likely to have shown the performance assignments to significant others, that they will mark more positive feelings about the assignments on the surveys than they will on the objective surveys, and that they will find these performance tasks more meaningful and interesting.

Students will be more fully engaged in performance assessments because these tasks are interdisciplinary, use multiple intelligences, and thereby allow students to express what they have learned using their individual strengths in more authentic ways. Performance assessment can require students to use skills from several disciplines in a single assignment; for example, a project in English class might require students to interview in gathering data to compile statistics and create graphs. Performance tasks can accommodate the multiple intelligences by giving students choices in demonstrating that they have retained and can apply what they have learned in the classroom. Performance assessments also create more authentic tasks; therefore, students can clearly see purpose in these assignments and relate school work to the real world.

Core Teacher Surveys

Throughout the first semester a small group of teachers from each school will be selected as the core group. These teachers will be surveyed to provide information about several key issues:

* determine exactly the number of scantron tests administered first semester
* determine exactly the number of other types of objective tests administered first semester
* determine exactly the number of essays assigned first semester
* determine the number and types of performance tasks assigned first semester

The data from these surveys will show the effects of the intervention. Another hypothesis is that the core group of teachers will be influenced by the student surveys and

videos which will show a preference for performance assessment, and, therefore, these teachers will provide more varied types of assessment in their classrooms.

Models of Performance Assessment

The researchers will provide the core group of teachers with many ideas for performance tasks. The teachers will get a comprehensive list of various performance tasks which teachers can use for assessment purposes. The teachers will also be given examples of student work showing completed performance tasks. The researchers will provide video-taped interviews with students talking about their varied experiences with objective and performance assessments for the core teachers to view.

## Methods of Assessment

In order to assess the effects of the intervention, the researchers will evaluate surveys and interviews with students and teachers. These surveys and interviews will be evaluated to determine student attitudes about traditional tests and performance assessments. Effects on the core teachers at each site will be determined by their comments regarding future use of performance assessment. The researchers will determine whether these teachers have a clear definition of performance assessment and whether they are planning to include more in their classrooms.

# CHAPTER 4

# PROJECT RESULTS

## Historical Description of the Intervention

The objectives of the intervention in this action research project were to ascertain faculty knowledge and student attitudes about different types of assessment. A core group of teachers at both Site A and Site B were to see the results of the student surveys and respond to the information gathered. A portfolio of performance assessment tasks was also developed and shown to this group of core teachers.

Student surveys were conducted at both sites to get student opinions about their work using both traditional assessment and performance assessment tools. At Site A, the 14 students were mostly learning disabled students from various grade levels; and at Site B the 26 students were all from a heterogeneous freshman English class. All students completed Survey 1 regarding an objective test they took and Survey 2 regarding a performance assessment.

## Presentation and Analysis of Results

The results of the student surveys will be analyzed by comparing answers to each of the 10 questions. Responses from the core teachers will be presented with their comments about the student surveys.

The students responded very differently to the two different types of assessment. The answers to most of the 10 questions on the surveys are noteworthy when evaluating

the effectiveness of objective testing vs. performance assessment. To begin with, students reported more time preparing for a performance assessment than for an objective test. For performance assessment, 78% of the students reported spending one week or more in preparation, compared to less than 1% of the respondents for the objective test. The students reported spending anywhere from three hours to four weeks to prepare for the performance assessment; however, the reported time to prepare for an objective test ranged from no time (1%) to two weeks (.08%), and 48% of the students spent one hour or less. The amount of time preparing for a test is some indication of the student's engagement in the assessment process. The fact that every single student prepared for the performance assessment is a testimony to the power of this assessment tool as a way to get students actively involved.

Other interesting differences between the two types of assessment were the students' perceptions of what they learned from the different assessments. Question number two on both surveys asked students to list the three most important things they learned. For the performance assessment tasks, student listed significantly more affective things than academic. On the traditional assessment surveys, students listed 14 affective things learned compared to 38 affective things learned from the performance assessment. Some direct quotes from the performance assessment surveys showing the affective lessons the students cited are included below:

never give up

there is no way to get a good copy on the first or second try

doing a rough draft makes it easy to do a perfect final draft

if you want a good grade, you must show or give a lot of effort

how to work with people

keep trying to succeed

how to organize and present a portfolio

how to use the library

The important academic lessons the students listed were mostly content specific: "why Pakistan is separate from India," "that Gandhi was non-violent," and "I learned the steps Gandhi used to get India's independence." Of course the academic lessons are important, but there is certainly more transference in the affective lessons the students cited. Learning to persevere and that practice makes perfect are important lessons that the students may transfer to many different academic tasks.

Whether or not a student shows his work to another person is some indication of the student's feelings about the work. Table 8 compares the numbers of people that the students shared their work with. (Of course, each student could have shown his work to more than one other person, so the total number of people shown is more than the total number of students.) Once again, the fact that the performance assessment product was more widely shared by the students indicates that the students had more ownership of that product. Table 8 shows that the students found the performance assessment worthy to show others, perhaps out of pride or perhaps for input from the third party. Regardless of the reason, the students' actions in sharing their work with others is another indication that the students were more engaged in the performance tasks.

Table 8

People Invited by the Student to View the Final Products of Assessment

| | Survey 1 (Traditional) | | Survey 2 (Performance) | |
|---|---|---|---|---|
| No one | 17 | (43%) | 0 | |
| Classmate | 19 | (49%) | 40 | (100%) |
| Parent | 2 | (.05%) | 29 | (73%) |
| Other Adult | 0 | | 20 | (50%) |
| Teacher (other than the teacher who made the assignment) | 2 | (.05%) | 10 | (25%) |
| Total of People Other than the Assigning Teacher who Were Shown the Assessment | 23 | | 99 | |

When the students were specifically asked their feelings about the different assessment tools, the students chose from a list of adjectives to describe their feelings about their work. Five of the adjectives showed positive feelings, and four of the adjectives expressed negative feelings. The students were instructed to circle all that apply, so there were multiple answers on most surveys and more total answers than total students. Table 9 shows the differences between the students' feelings about the two forms of assessment.

Table 9

Students' Feelings Regarding Traditional and Performance Assessment Tools

| | Survey 1 (Traditional) | Survey 2 (Performance) |
|---|---|---|
| Positive Adjectives | 44 | 115 |
| Negative Adjectives | 37 | 10 |

It is also worth noting that 90% of the respondents for the performance assessment specifically circled the word "proud" to describe their feelings, while only 20% used that word to describe their feelings about the objective tests. Perhaps only the students who scored very high on objective tests were proud of those tests, while all students who worked hard on the performance assessment were proud of what they accomplished.

Question five did not get significantly different answers for the two different types of assessment. It seems that teachers' grades made the students feel worse 38% of the time, feel better 38 % of the time, and do not affect students' feelings about their work 25% of the time.

Question six on the survey revealed results similar to those for question two. The question asked students to list the most meaningful thing that they will remember from the experience of preparing for this test. Again the answers were categorized as affective or academic, and again the performance assessment tasks generated more affective responses. First of all, only 53% of the students even answered this question for the objective tests, compared with 95% of the students who answered this question for the performance assessment tasks. On the traditional tests, students listed 13 meaningful affective things to remember compared with 29 affective lessons listed for the performance assessments. The following list of phrases is from direct quotes on the performance assessment surveys explaining "the most meaningful thing" that the student will remember from this assignment.

how much preparation went through to make it perfect

be prepared and do the work early

the most meaningful thing for me was responsibility

that I really tried hard

work doesn't only mean time; it also means learning something

two heads are better than one

that if I work hard I can do whatever I want

Again, the meaningful affective lessons from these assessments will easily transfer to other parts of the students' lives. Learning to spend time in preparation, to avoid procrastination, and to be responsible are important lessons that the students can use in many contexts.

Another important perception about performance assessments is shown in the students' answers to question seven. The students were asked to rate the assessment tool on how well it showed what the students had learned. The students were given a 10-point scale to mark their responses from "Didn't show what I know at all" to "Showed absolutely everything I learned." The results are represented in Table 10.

Table 10

Student Perceptions of the Assessments as Measurements of Students Learning

| Students' Scores | Survey 1 (Traditional) | Survey 2 (Performance) |
|---|---|---|
| Less than 5 | 16 | 1 |
| 5 | 15 | 4 |
| More than 5 | 8 | 33 |

It is important to note that 83% of the responses about the performance assessment rated it as very effective in assessing what they learned, while only 20% rated the traditional test

as a thorough measure of what they learned. If students perceive that an assessment tool is unfair, they may be less likely to do their best work. If students think objective tests are not valid measures, the students may be less motivated to study for them. On the other hand, if students perceive performance assessment as a way to truly show what they have learned, they may be more engaged in those assignments.

The last three questions on the surveys were not good questions for our purposes. Question 8 showed that students most often preferred group work no matter what type of assessment they were responding to. Question 9, regarding grades, was confusing for students and incited varied questions about how to answer it. Because the researchers instructed the students differently about how to answer that question, the results were deemed invalid. Question 10, about interesting stories, did not illicit any meaningful information. Most students left that question blank, and the most recurrent answer was about computers malfunctioning.

Discussing the results of these surveys with the twelve core teachers from both sites resulted in meaningful dialogue about the different types of assessments. All of the teachers at both sites were surprised by the statistics and had various explanations for the reasons students answered the way they did. When asked if they thought performance assessments were more engaging for students, every core teacher said yes or probably. Most teachers indicated a desire to use more performance assessment as a way to stimulate students to become more active learners; but two teachers said that they could not change the way they teach to accommodate more performance assessment because

that would require more time. Several teachers indicated that they would modify their assessments to make them more engaging for students.

The core teachers were also shown a portfolio of performance assessment tasks from various disciplines. Most of the teachers were very interested in these models, and several teachers asked for copies. The performance assessment tasks were interdisciplinary, integrating skills from several disciplines. Science experiments had been used in the English class for lessons such as letter writing and evaluating Mark Twain's cynicism. Math and graphing were used for surveys relating to Shakespeare's Romeo and Juliet. One math teacher said that she thought her students would be "doing math without even realizing it" because the math skills were part of an interesting project. Of course, there was a small fraction of core teachers who were not interested in the portfolio of performance assessment tasks because, they said, their curricula were already packed. The portfolios remain available for teachers to peruse, to use, and to add to with their own assignments.

## Conclusions and Recommendations

Based on the data gathered from the faculties and students at Sites A and B, teachers need more information about performance assessment. Staff development programs should be used to teach teachers more about this subject. When teachers have a clear understanding of what performance assessment is and how students respond to it, teachers may be more apt to use it and thereby increase student learning.

Further research should be done about students' attitudes regarding different types of assessment. The data presented in this action research project is on a small scale and

should be replicated with a larger population of students. Also, further research could compare different types of assessment rather than just objective tests and performance assessments. Armed with more research about students' perceptions of different assessment tools, teachers might be more inclined to modify their teaching to incorporate more meaningful assessments in the classrooms.

Other research should focus on examining the validity of standardized tests. These types of tests have been criticized for many deficiencies, but based on students' attitudes about assessment, standardized tests may take another blow. If students do not consider objective scantron tests to be accurate measurements of their knowledge, students may be less inclined to do their best work on these tests. Just allowing students to use assessment tools that more accurately measure student learning may motivate students to do better work.

Performance assessment does have limitations. It probably would not be practical to use it exclusively because it is time-consuming. However, if performance assessment can be used more often to engage students, then students will have more meaningful learning experiences; and if students can glean affective lessons from their work, as well as academic knowledge from the content areas, education will truly be enhanced.

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# APPENDIX A

# FACULTY SURVEY

**A Quick Survey, Please**

This survey is required as part of an assessment project I am working on for my master's degree. Please return this survey to my mailbox. Thank you for your input.

-- Cathy Creagh
-- Tamara McHaney

1. What discipline do you teach? _____

2. What is your definition of performance assessment?
   I have none. ___
   my definition: _____
   _____
   _____

3. Do you have standards and criteria written down (rubrics) to assess major assignments?
   YES NO

3. If you answered yes to #3, do your students get copies of the standards and criteria (rubrics) prior to assessment?
   YES NO

4. Use the line below to mark your attitude about the most important thing in assessing student achievement.

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
| the effort of the student. | | equal weight to effort and product | | the final product (test, project, essay) |

5. How often do you consider the students' process in obtaining an answer rather than assessing only the correct answer?

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
| never | | occasionally | | always |

6. Circle the tasks below that you would classify as performance assessment.

| | | |
|---|---|---|
| a speech | an interview | art work |
| a poster | a letter | an experiment |
| a video | graphs | an essay |
| a true/false test | presentations | multiple choice test |

7. How often do you use performance assessment in your classrooms?
   never
   occasionally
   frequently
   always

# APPENDIX B

## CORE TEACHER SURVEY

Core Teacher Survey

Date _____

Weekly Assessment Questionnaire

1. How many scantron tests did you give this week?

2. How many objective tests (other than scantron) did you give this week?

3. How many essays did you assign this week?

4. How many projects were assigned this week? Circle the ones that apply.

| | | | |
|---|---|---|---|
| experiment | speech | poster | presentation |
| project | video | graph | interview |
| essay | artwork | letter | performance (reciting, acting, |
| other _____ | | | singing, batting a ball) |

# APPENDIX C

## STUDENT SURVEY FOR TRADITIONAL ASSESSMENT

Student Survey 1 -- to be administered after traditional type assessment, i.e., objective test

1. How long did it take you to prepare for this test?

2. List the three most important things you learned:

_____
_____
_____
_____
_____

3. Circle all the people below to whom you showed this test.

classmate a parent
any other adults no one
a teacher other than the teacher who gave the test

4. How did you feel when you finished this test? (Circle all that apply.)

happy challenged disappointed proud
smart bored stupid
interested in learning more about this topic
sick of this topic

5. How did the teacher's grade on this test affect your feelings about it?

made me feel better made me feel worse
did not influence the way I felt

6. What is the most meaningful thing that you will remember from the experience of preparing for and taking this test?

7. How well did **this test** show what you have learned about the topic? Place an "X" on the line below to show

1_____5_____10

| Didn't show | Showed much | Showed absolutely |
|---|---|---|
| what I know at all. | of what I know. | everything I learned. |

8. Would you prefer taking this test by yourself or with a small group of classmates?

9. If you were to give yourself a grade on this test, would it be

almost the same as the teacher's grade
higher than the teacher's grade
lower than the teacher's grade

10. Write a brief story about something fun or interesting that happened while you were preparing for or taking this test.

# APPENDIX D

## STUDENT SURVEY FOR PERFORMANCE ASSESSMENT

Student Survey 2-- to be administered after a performance assessment.

1. How long did it take you to prepare for this assignment?

2. List the three most important things you learned:

_____
_____
_____
_____

3. Circle all the people below to whom you have shown this assignment.

classmate a parent
any other adults no one
a teacher other than the teacher who gave the assignment

4. How did you feel when you finished this assignment? (Circle all that apply.)

happy challenged disappointed proud
smart bored stupid
interested in learning more about this topic
sick of this topic

5. How did the teacher's grade on this assignment affect your feelings about it?

made me feel better made me feel worse
did not influence the way I felt

6. What is the most meaningful thing that you will remember from the experience of preparing for and taking this assignment?

7. How well did **this assignment** show what you have learned about the topic? Place an "X" on the line below to show

1_____5_____10

| | | |
|---|---|---|
| Didn't show what I know at all. | Showed much of what I know. | Showed absolutely everything I learned. |

8. Would you prefer working on this assignment by yourself or with a small group of classmates?

9. If you were to give yourself a grade on this assignment, would it be

almost the same as the teacher's grade?
higher than the teacher's grade?
lower than the teacher's grade?

10. Write a brief story about something fun or interesting that happened while you were preparing for or taking this assignment.